

ABSTRACT OF THE DISCLOSURE

Leakage current generated in a PN junction diode is reduced, and charge-up current caused by plasma treatment in formation of wiring connected to the PN junction diode is controlled. An N^+ region as a first conductive type impurity region provided in a Si substrate with an upper surface being exposed on one main surface of the Si substrate, a P^+ polysilicon plug provided with a bottom being contacted with an upper surface of the N^+ region, and wiring connected to a top of the P^+ polysilicon plug are included.